

**DRAFT
ENVIRONMENTAL IMPACT STATEMENT**

**INTERIM OPERATIONAL PLAN (IOP)
FOR PROTECTION OF THE CAPE SABLE SEASIDE
SPARROW**

**EVERGLADES NATIONAL PARK
DADE COUNTY, FLORIDA**

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**U.S. Army Corps of Engineers
Jacksonville District**

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Abstract: In February 1999, The U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion (BO) on the Modified Waters Deliveries (MWD) to Everglades National Park (ENP) Project, Test 7 of the Experimental Program, and the C-111 Project. The USFWS BO found that current water management operations of Test 7 would jeopardize the continued existence of the Cape Sable seaside sparrow (CSSS) in ENP, Big Cypress National Preserve, and adjacent areas in south Florida. The USFWS BO identified a Reasonable and Prudent Alternative (RPA) which contains detailed water delivery targets recommended to protect the CSSS. The USFWS RPA recommendations included: that a minimum of 60 consecutive days of water levels at or below 6.0 feet NGVD occur at NP 205 between March 1 and July 15; ensure that 30%, 45%, and 60% of required regulatory releases crossing Tamiami Trail enter ENP east of L-67 extension in 2000, 2001, and 2002, respectively, or produce hydroperiods and water levels in the vicinity of South Dade Conveyance System (SDCS) that meet or exceed those produced by the 30%, 45%, and 60% targets; and produce hydroperiods and water levels in the vicinity of subpopulations SDCS that meet or exceed conditions that would result from implementation of the exact provisions of Test 7, Phase II operations. In response to the USFWS BO, the Jacksonville District, U.S. Army Corps of Engineers (Corps) proposes to implement an Interim Operational Plan (IOP) for protection of the CSSS. The preferred alternative, which would be implemented in two phases (IOP 4a and IOP 4), meets the USFWS RPA targets, and would provide optimum protection of the CSSS populations while continuing to meet the flood protection and water supply requirements authorized under the Central and Southern Florida project.

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Executive Summary

Background. On 19 February 1999, the USFWS issued a Final Biological Opinion for the Modified Waters Deliveries (MWD) to Everglades National Park, Project, Test 7 of the Experimental Water Deliveries Program, and C-111 Project under provisions of the Endangered Species Act of 1973, as amended. The USFWS BO concluded that continuation of Test 7, Phase I operations would cause adverse modification of CSSS critical habitat and would jeopardize the continued existence of the CSSS. The USFWS BO presented a

Reasonable and Prudent Alternative to the then existing operations that would avoid jeopardizing the CSSS. The USFWS RPA recommended that the following hydrological conditions be met for protection of the CSSS: 1) A minimum of 60 consecutive days of water levels at or below 6.0 feet NGVD at NP 205 between March 1 and July 15; 2) Ensure that 30%, 45%, and 60% of required regulatory releases crossing Tamiami Trail enter ENP east of L-67 extension in 2000, 2001, and 2002, respectively, or produce hydroperiods and water levels in the vicinity of subpopulations C, E, and F that meet or exceed those produced by the 30%, 45%, and 60% targets; and 3) Produce hydroperiods and water levels in the vicinity subpopulations C, E, and F that equal or exceed conditions that would be produced by implementing the exact provisions of Test 7, Phase II operations (USACE 1995).

Emergency deviations from Test 7 were authorized in 1998, 1999, 2000, and 2001 by CEQ to allow the Corps to conduct water control operations to protect the CSSS (USACE 1999b; USACE 1999c; USACE 2000). These Interim Operational and Structural Plans (ISOP) enabled the Corps to maintain water levels, particularly in the western CSSS populations, that would maximize breeding seasons for the sparrow.

During implementation of the ISOP, the U.S. Army Corps of Engineers (USACE) received confirmation from the USFWS that producing the hydrologic equivalent of the 30, 45, and 60% conditions, as opposed to the actual release percentages, would also meet the USFWS RPA conditions until the implementation of MWD in 2003. The proposed actions under this Interim Operational Plan (IOP) will allow the USACE to meet the USFWS RPA conditions, while managing the system for purposes authorized under the C&SF project. It should be noted that Phase 1 IOP is ISOP 2001.

Alternatives. Representatives from the various agencies evaluated a number of options that had potential as solutions in satisfying the project purpose by using the ISOP operations as a base. These options included changes in operational criteria for existing structures throughout the region that could influence water levels within the various CSSS subpopulations. Two interagency modeling meetings were held to discuss potential options for meeting the criteria stated in the USFWS BO and to evaluate modeling runs produced by the USACE prior to the meetings. Changes in the operation of various structures were proposed during the meetings and in subsequent correspondence, and appropriate model runs were produced. The modeling

under normal C&SF operations with Test 7, Phase I operations in the ENP/South Dade Conveyance System (SDCS) prior to emergency deviations.

Six plans were selected for evaluation in this document.

Alternative 1 (No Action). The No Action Alternative ISOP 9dR, was designed to meet the USFWS RPA targets and was authorized under in the March 2000 EA. ISOP 9dR is the current operation of the C&SF system.

Alternative 2. Alternative 2 was developed to further improve conditions in the eastern sparrow populations over those under the No Action alternative, while also improving environmental conditions within other affected regions of the project area. It was decided that IOP alternatives must be formulated in two phases; the first phase would be in effect prior to any action being implemented under the pending 8.5 SMA Project; and Phase 2, which would take effect once the plan for the 8.5 SMA was constructed. For the modeling of the IOP, it was assumed that as a result of the implementation of the 8.5 SMA solution, the G-3273 trigger was no longer in effect and that flood mitigation would occur. Phase 1 of Alternative 2 (IOP 2b) differs from the No Action Alternative (ISO P 9dR) by adding a deviation schedule to WCA 2A, closing the S-343 A/B and S-344 structures later, closing S-12A later, closing the S-12D structure from February 1 to July 15, raising the flows at S-332B, and changing the flow rates at S-332D. Phase 2 of Alternative 2 (IOP 2) differs from the No Action by; allowing S-333 to deliver water to NESRS via L-29 at a rate up to its structural capacity (1350 cfs) when the G-3273 gage is higher than 6.8 feet, close the S-334 structure during regulatory releases from S-333, and incorporate the same changes as Phase 1 (IOP 2b).

Alternative 3. Alternative 3 was developed in two phases for the same purpose as Alternative 2, where Phase 1 would be implemented prior to the 8.5 SMA implementation and Phase 2 taking affect afterwards. Phase 1 of Alternative 3 (IOP 2a) is identical to IOP 2 with one exception; S-333 would be closed when the G-3273 gage is higher than 6.8 feet. Phase 2 of Alternative 3 (IOP 2) is the same as Phase 2 for Alternative 2.

Alternative 4. Alternative 4 (IOP 3 and IOP 3a) is similar to Alternative 2 (IOP 2 and IOP 2a) with the exception that the S-12 structures A, B, C, and D and the S-343/S-344 structures would be closed earlier in the year, from November 1 through July 15. IOP 3a would be implemented as Phase 1 and IOP 3 would be implemented as Phase 2.

Alternative 5 (Preferred Alternative). Alternative 5 (IOP 4a and IOP 4) are similar to Alternative 1 (No Action) with the following differences: flows from S-332B would increase to 500 cfs from August to January, 325 cfs in February, June, and July, and 125 cfs from March to May; and the S-176 structure operation thresholds would change slightly. For Phase 2, (IOP 4), the G-3273 trigger would also no longer be in effect.

Alternative 6. Alternative 6 (IOP 5a and IOP 5) would be similar to Alternative 5 with the following exception: an additional S-332B seepage reservoir would be constructed, bringing the total retention area to approximately 400 acres (from 160 acres). The duration of the various flow rates for S-332B would also change slightly.

Environmental Consequences of the Preferred Alternative. The preferred alternative (Alternative 5) would affect hydrology of Northeast Shark River Slough (NESRS), western SRS, and WCA 3A and 3B. The hydrology of WCA 2A and 2B would be affected, but only to the same degree as the No Action alternative. The effects to the hydrology would be beneficial in NESRS and WSRS by providing better breeding conditions for the CSSS as
~~as well as WCA 2A and 2B. Potentially adverse impacts could occur in WCA 2A and~~

3B, but less than with Alternatives 2, 3, and 4. A beneficial impact to Taylor Slough would occur with the preferred alternative by the removal of the L-31W berm to allow sheet flow to enter the slough.

Impacts to vegetation with the preferred alternative would be similar to those of the No Action alternative. Increased ponding depths and hydroperiod in NESRS would be beneficial by providing more natural hydrologic conditions, excluding exotic nuisance species and encouraging natural wetland species. A reduction in annual flooding duration in WSRS would also be beneficial to native vegetative species. WCA 2 and 3 are not likely to experience adverse effects due to implementation of the preferred action. Increased flood duration could lead to loss of some wetland vegetation as well as upland vegetation in the southern portion of the areas.

It is not believed at this time that a violation of the settlement agreement would occur due to the overflows at the S-332B structure. This is based on the overflow data (September and October 2000 event). The settlement agreement targets for the Taylor Slough are based on a flow-weighted average for all inflow points into the Taylor Slough region. It is believed that
~~the water quality standards would align with the preferred~~

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LIST OF ACRONYMS

C-x	Canal
C&SF	Central and South Florida
cfs	Cubic Feet per Second
CSSS	Cape Sable Seaside Sparrow
DEIS	Draft Environmental Impact Statement
DERM	Department of Environmental Resources Management
EA	Environmental Assessment
EAA	Everglades Agricultural Area
EIS	Environmental Impact Statement
ENP	Everglades National Park
ESA	Endangered Species Act
FDACS	Florida Department of Agriculture and Consumer Services
FDEP	Florida Department of Environmental Protection
FFWCC	Florida Fish and Wildlife Conservation Commission
FONSI	Finding of No Significant Impact
FY	Fiscal Year
G-x	Gaging Station or Culvert Structure
GDM	General Design Memorandum
HTRW	Hazardous, Toxic, and Radioactive Waste
IOP	Interim Operational Plan
ISOP	Interim Structural and Operational Plan
L-x	Levee
LEC	Lower East Coast
LOSA	Lake Okeechobee Service Area
MWD	Modified Water Deliveries to Everglades National Park
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NOI	Notice of Intent
NPS	National Park Service
NESRS	Northeast Shark River Slough
PL	Public Law
S-x	Pump Station, Spillway, or Culvert
SDCS	ENP/South Dade Conveyance System
SFWMD	South Florida Water Management District
SMA	Square Mile Area
SRS	Shark River Slough
SSM	Supply Side Management
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USFWS RPA	U.S. Fish and Wildlife Service Reasonable and Prudent Alternative
USFWS BO	U.S. Fish and Wildlife Service Biological Opinion
WCA	Water Conservation Area
WSRS	Western Shark River Slough